

AMENDMENTS TO THE CLAIMS:

The listing of claims will replace all prior versions, and listings of claims in the application:

LISTING OF THE CLAIMS

1. (Currently amended) A digital communication system for processing at least one of cell and packet information, the digital communication system comprising:

at least one node interconnected through a fabric, the at least one node comprising:

~~at least one of a plurality of network processing devices, at least one~~
network processing device for receiving at least one of the cell and the packet information, for determining a destination within the node for the cell and the packet information, and for at least one of routing and forwarding the cell and the packet information to the destination;

a shared bus structure for coupling each of the network processing devices with each other; and

an interface for coupling ~~the~~ at least one ~~of the~~ network processing devices with the fabric to support communication between nodes via a coupling means different from the shared bus structure.

2. (Original) The digital communication system of claim 1, wherein the destination is determined in response to at least one of stored routing rules and characteristics of the cell and the packet information.

3. (Original) The digital communication system of claim 2, wherein the at least one of a plurality of network processing devices employ dynamically updated routing rules.

4. (Original) The digital communication system of claim 1, wherein the at least one of a plurality of network processing devices performs the at least one of routing and forwarding on both the cell and the packet information simultaneously.

5. (Original) The digital communication system of claim 1, wherein the at least one of a plurality of network processing devices directly delivers the at least one of routing and forwarding the cell and the packet information into a memory of the destination.

6. (Original) The digital communication system of claim 1, wherein the at least one network processing device supports peer-to-peer routing.

7. (Original) The digital communication system of claim 1, wherein the interface provides the cell and the packet information to the at least one network processing device.

8. (Original) The digital communication system of claim 7, wherein the interface comprises at least one of a System Interface and a Maintenance Interface.

9. (Original) The digital communication system of claim 7, wherein the interface comprises a multiplexer for creating a multiplexed stream from the at least one of the cell and the packet information.

10. (Canceled)

11. (Currently amended) The digital communication system of claim 1, wherein the node further comprises:

a general-purpose processor for at least one of controlling the ~~at least two~~ plurality of network processing devices and performing maintenance on the node.

12. (Original) The digital communication system of claim 11, wherein the shared bus structure couples the general-purpose processor with each of the network processing devices.

13. (Canceled)

14. (Original) The digital communication system of claim 11, wherein the general-purpose processor supports peer-to-peer routing with at least one of the network processing devices.

15. (Original) The digital communication system of claim 1, comprising:
at least one external system input/output interface.

16. (Original) The digital communication system of claim 15, wherein the external system input/output interface supports at least one transport mechanism type, the at least one transport mechanism type comprising at least one of Asynchronous Transfer Mode, Internet Protocol, and Frame Relay.

17. (Currently amended) A communication node for processing at least one of cell and packet information comprising:

~~at least one of a plurality of network processing devices, at least one network processing device~~ for receiving at least one of the cell and the packet information, for determining a destination within the node for the cell and the packet information, and for at least one of routing and forwarding the cell and the packet information to the destination, the destination determined in response to at least one of stored routing rules and characteristics of the cell and the packet information;

a shared bus structure for coupling each of the network processing devices with each other; and

at least one of a System Interface and a Maintenance Interface ~~for coupled to ing~~
~~for providing the cell and the packet information to the~~ at least one network processing device via a coupling means different from the shared bus structure.

18. (Original) The communication node of claim 17, wherein the at least one of a plurality of network processing devices employ dynamically updated routing rules.

19. (Original) The communication node of claim 17, wherein the at least one of a plurality of network processing devices performs the at least one of routing and forwarding on both the cell and the packet information simultaneously.

20. (Original) The communication node of claim 17, wherein the at least one of a plurality of network processing devices directly delivers the at least one of routing and forwarding the cell and the packet information into a memory of the destination.

21. (Original) The communication node of claim 17, wherein the at least one network processing device supports peer-to-peer routing.

22. (Original) The communication node of claim 17, comprising:
a multiplexer for creating a multiplexed stream from the at least one of the cell and the packet information, the multiplexed stream is received through at least one of a System Interface and a Maintenance Interface.

23. (Currently amended) The communication node of claim 17, comprising:
a general-purpose processor for controlling the at least two plurality of network processing devices, wherein the shared bus structure couples the general-purpose processor with each of the network processing devices.

24. (Original) The communication node of claim 17, wherein the shared bus structure couples the general-purpose processor with each of the network processing devices.

25. (Original) The communication node of claim 17, wherein the shared bus structure comprises a Peripheral Component Interconnect bus.

26. (Original) The communication node of claim 17, comprising:
at least one external system input/output interface supportive of at least one transport mechanism type, the at least one transport mechanism type comprising Asynchronous Transfer Mode, Internet Protocol, and Frame Relay.

27. (New) A digital communication system for processing at least one of cell and packet information, comprising:

at least one node interconnected through a fabric, the at least one node comprising:

a plurality of network processing devices, at least one network processing device being operable to receive the at least one of cell and packet information, to determine a destination within the node for the at least one of cell and packet information, and to provide at least one of routing and forwarding of the at least one of cell and packet information to the destination;

a shared bus structure coupled to each network processing device to support communications between network processing devices; and

an interface for coupling the at least one network processing device with the fabric to support communication between nodes via a coupling means different from the shared bus structure.

28. (New) The digital communication system of claim 27, the interface comprising: at least one of a System Interface and a Maintenance Interface.